



PORTABLE MAGNETIC TAPE RECORDER / REPRODUCER

MODEL 17373

Geotech LT/FM (Long-Term/Frequency Modulation) Portable Magnetic Tape Recorder, Model 17373, records 7 data-channels on 1/2-inch tape. IRIG-standard 15/160 ips is the operating speed; models with speeds from .03 through .1 ips are available. Real-time playback, using flux-responsive heads, is provided on all models. One playback channel is normally provided. This channel is switchable to any of the 7 channels available.



SPECIFICATIONS

RECORD

Channels	7
Input: Level	0 to 10v p-p
Impedance	50k ohm nominal
Type	Single or double ended
Center Frequency	84.4 cps
Maximum Deviation	40% (0.9v rms to 5v rms input, adjustable)
Linearity Error	$\pm 1.0\%$ of full bandwidth
Drift	0.01 v/ $^{\circ}$ C
Data Bandwidth	0 to 17 cps

THE GEOTECHNICAL CORPORATION

3401 SHILOH ROAD • GARLAND, TEXAS • 214-BR 8-8102 • CABLE: GEOTECH DALLAS



REPRODUCE

Channels	1 switchable to any track
Output: Level	3v nominal
Impedance	100 ohms maximum
Type	Single ended
Dynamic Range	35db; p-p signal to p-p noise 40db; rms signal to rms noise
Frequency Response	0 to 17 cps $\pm$ 3 db
Linearity Error	$\pm$ 1%

MECHANICAL

Heads	IRIG Standard
Tracks	7
Tape	Instrumentation
Width	0.5 inch
Thickness	1.0 to 1.5 mil
Reels	10.5 inches or 14 inches, NAB Hubs
Speed	
Nominal	15/160 ips (0.03 or 0.06 ips available at no additional charge)
Accuracy	$\pm$ 0.25%

ENVIRONMENTAL

Shock	10g (non operational)
Humidity	0 to 95%
Temperature, Operating	+ 20°F to + 140°F
Altitude	Up to 15,000 feet above MSL
Case	Weather-tight aluminum

POWER

Voltage	
Nominal	+ 12, 0, -12v dc
Range	11 to 14v both legs
Power Requirements	7w, 4-channel record only 8w, 7-channel record only 9w, 7-channel record, and 1-channel playback

PHYSICAL SPECIFICATIONS

Size	18-1/2 x 22 x 8 in. (2 cu ft) 47 x 55.9 x 20.3 mm
Weight	36 lbs

OPERATIONAL FEATURES

Motor-driven fast forward
Record ON-OFF switch
Playback ON-OFF switch, channels 1-7
Manual pressure-roll release
Head tape lifters during fast forward mode

Direct record in place of FM will be available as an option.

RECORD • MONITOR • PLAYBACK IN REAL TIME FOR UP TO THIRTY-THREE DAYS!

OPERATIONAL FEATURES

Geotech LT/FM* magnetic tape recorder/reproducers are specifically designed for the long-term recording of slowly varying data. Extended tape-change intervals reduce tape requirements — and costs.

Unique flux-responsive real-time playback heads reproduce analog and event signals with a dynamic range equal to that obtained in higher-speed instrumentation recorders.

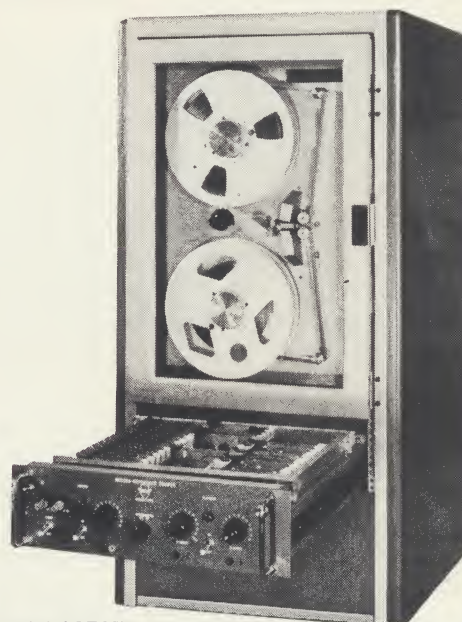
IRIG-compatible recording speeds make possible the reduction of the produced data on any higher-speed IRIG-standard reproduce unit.

APPLICATION AREAS

- Seismology
- Automotive Design Evaluation
- Meteorology
- Environmental Testing
- Oceanography
- Human Factors Engineering
- Biology
- Process Control Monitoring/Programming
- Frequency Compression/Expansion



model 17373



model 12707

SPECIFICATIONS

Model	Tape Speed	Channels	FM Data Frequency Range ¹	FM Center Frequency	Recording Time	Playback ² Channels	Dynamic Range ³	Power Consumption
12707	.045 ips	14	DC-10 cps	54 cps	7½ days	2	40 db	45 watts
20122 ⁴	.060 ips	14	DC-10 cps	54 cps	16½ days	2	40 db	60 watts
20123 ⁴	.030 ips	14	DC- 5 cps	27 cps	33 days	2	40 db	60 watts
17373	15/160 ips	7	DC-17 cps	84.4 cps	8 days	1	40 db	9 watts

1. Direct-recording mode available.
2. Switchable to any recorded channel. Facilities for a full set of 14 playback channels can be provided with plug-in components.
3. RMS basis, without compensation. Compensation available using channel 7.
4. Dual-speed Model 17554, .030/.060 ips, also available.

THE GEOTECHNICAL CORPORATION

DEPT. 14 • 3401 SHILOH ROAD • GARLAND, TEXAS • 214 BR 8-8102 • CABLE: GEOTECH - DALLAS

"Geotech Serves the Sciences"



THE GEOTECHNICAL CORPORATION

3401 Shiloh Road, Garland, Texas 75041

P.O. Box 28277, Dallas 28, Texas 75228

Area Code 214 BR 8-8102

TWX 214 278-9516



Dear Sir:

This letter and enclosed literature are in reply to your request for more information concerning Model 17373, the new Geotech portable recorder / reproducer.

Weighing only 35 pounds, Model 17373 provides highest quality recording for laboratory or stringent field applications. This suitcase-size LT/FM* unit records 7 channels of low-frequency data on a 14" reel of 1/2" tape continuously for 10 days. Normal operating speed is IRIG-standard 15/160 ips. This unit may be purchased with alternative speeds of 0.03 or 0.06 ips.

Real-time playback at ultra-slow-speeds is an LT/FM exclusive advantage. It permits monitoring while recording and makes possible exact signal reproduction. Dynamic range equal to that obtained in audio frequencies is produced by this unique flux-responsive playback system. Because drift compensation is not required, all channels are available for recording on a full-time basis.

All electronics are solid state. Power requirements: 24 volts dc, center tapped; ac optional.

PRICE: \$8,750, F.O.B. Dallas, Texas.

Please contact me if you would like more information concerning Model 17373. We are prepared to modify this instrument, within the basic design concept, to meet any requirement.

Sincerely,

Demonstration unit
now available.

THE GEOTECHNICAL CORPORATION



Joseph D. Hamel

JDH:lr
Enclosure

*LT/FM: Long-Term/Frequency Modulation

FIRST CLASS
PERMIT No. 9770
DALLAS, TEXAS

BUSINESS REPLY MAIL
NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

POSTAGE WILL BE PAID BY:

THE GEOTECHNICAL CORPORATION
3401 SHILOH ROAD
GARLAND, TEXAS 75041

GEOTECH SERVES THE SCIENCES

_____, 1965

Gentlemen,

My application area is in _____

Within _____ months I could possibly use a Model _____

LT/FM recorder () as is () modified as follows: _____

Please () send more information, () Have someone call on me, () Keep
my name on your mailing list, () Forget it.

NAME _____

PHONE _____

MAILING ADDRESS _____